

Listing of the Claims

1. (Original) A method of adaptive sampling of a structure in a data set, the method comprising the steps of: identifying a region of the structure comprising high frequency signals; performing a first sampling with a first sampling rate, resulting in a sampled structure comprising first sample points; wherein the first sampling is performed along a trajectory intersecting the region comprising the high frequency signals, wherein the region of the structure comprising high frequency.
2. (Original) The method according to claim 1, wherein the region of the structure comprising high frequency signals is identified by performing a second sampling with a second sampling rate; wherein the first sample rate is higher than the second sampling rate.
3. (Original) The method according to claim 1, wherein the sampled structure is rendered on the basis of the first sampling; and wherein an average pixel value of a pixel in the region comprising the high frequency signals is determined by evaluating an average of the values of the first sample points.
4. (Original) The method according to claim 1, wherein the structure is determined by an iso-surface rendering procedure.
5. (Original) The method according to claim 1, wherein the trajectory along which the first sampling is performed is a line intersecting the region comprising the high frequency signals.
6. (Original) The method according to claim 1, wherein the region of the structure comprising the high frequency signals is an edge.
7. (Original) The method according to claim 1, wherein the adaptive sampling includes a ray casting; and wherein the ray casting is used for detecting the edge.

8. (Original) The method according to claim 1, wherein the structure comprises a surface; wherein the surface comprises a surface variation; and wherein the trajectory extends along a direction of a maximum surface variation.

9. (Original) The method according to claim 1, wherein the method is used for virtual endoscopy.

10. (Original) An image processing device for adaptive sampling of a structure in a data set, the image processing device comprising: a memory for storing the data set; an image processor adapted for performing the following operation: loading the data set; identifying a region of the structure comprising high frequency signals; performing a first sampling with a first sampling rate, resulting in a sampled structure comprising first sample points; wherein the first sampling is performed along a trajectory intersecting the region comprising the high frequency signals.

11. (Original) A scanner system, comprising: a memory for storing a data set; an image processor adapted for performing adaptive sampling of a structure in the data set, wherein the image processor is adapted for performing the following operation: loading the data set; identifying a region of the structure comprising high frequency signals; performing a first sampling with a first sampling rate, resulting in a sampled structure comprising first sample points; wherein the first sampling is performed along a trajectory intersecting the region comprising the high frequency signals.

12. (Original) A scanner system according to claim 11, wherein the scanner system is one of a CT scanner system and a MR scanner system.

13. (Currently Amended) A computer program ~~product~~ stored on a computer readable medium, wherein the computer program is for performing adaptive sampling of a structure in a data set, wherein the computer program product causes an image processor to perform performs the following operation when the computer program is executed on the image processor: loading the data set; identifying a region of the structure comprising high frequency signals; performing a first sampling with a first sampling rate, resulting in a sampled structure comprising first sample points; wherein

the first sampling is performed along a trajectory intersecting the region comprising the high frequency signals.